

# INDEX.

- Aboriginal Customs, 6.  
 Aceratheria, 333.  
 African explorations, 51, 334, 404, 533, 592, 660.  
 Albula vulpes, 308.  
 Aldrich, C., on mimicry in a snake, 711.  
     on red-headed woodpecker, 522.  
     on vibrations in the tail of snakes, 712.  
     on wrens and the bee moth, 262.  
 Alepidosaurus ferox, 455.  
 Alfilarilla, 413.  
 Algae of Great Salt lake, 701.  
 Allinson, J., on the swallow, 706.  
 Ambloplites interruptus, 299.  
 Amblychila cylindriciformis, 595.  
 Amblystomum mavortium, 438.  
 Amia calva, 525.  
 Amnicola longiqua, 147.  
 Ampelopsis quinquefolia, 680.  
 Amphioxus, 44.  
 Anyzon Tertiary beds, 332.  
 Anchisodon, 270.  
 Anchitherium, 462.  
 Aniella pulchra, 782.  
 Animal music, 209.  
 Animals, domestic, origin of, 747.  
 Annulida, 385.  
 Anodonta californiensis, 145.  
 Anoplopoma fimbria, 300.  
 Ant, agricultural, 314.  
     gall inhabiting, 126.  
     slave making, 707.  
 Ants, habits of, 525.  
     mandibles of, worn by use, 596.  
 Anthropology, 43, 129.  
 Apes, anthropoid, anatomy of, 394.  
 Aphaenogaster, 708.  
 Apple worm, 523.  
 Archæopteryx, 727.  
 Arctic expedition, Swedish, 132.  
 Arctotherium simus, 791, 800.  
 Arena sterilis, 419.  
 Artemia fertilis, food of, 701.  
 Aspidium bootii, 186.  
 Axes, iron, 528.  
 Bacteria, 601.  
     luminous, 599.  
 Bahna basin, 462.  
 Bailey, W. W., on humble bees and Gerardia, 649.  
 Balenoptera, 715.  
 Ballou, W. H., does the snowy owl breed in the United States? 525.  
 Barbeck, W., on fungi infesting cereals, 612.  
 Barber, E. A., on Indian graves in Pennsylvania, 294.  
 Barley grass, 418.  
 Barnacle living on a gar pike, 453.  
 Barnes, G. W., on sand mounds in California, 565.  
 Barley, origin of, 751.  
 Barracuda, 303.  
 Bathybius, 715.  
 Batrachians, effect of dry and moist heat on, 395.  
 Beaumont, S. W., on twining of hedge bindweed, 778.  
 Bee gathering honey from Catalpa, 648.  
 Bees, humble, and Gerardia, 649.  
 Bee moth, 262.  
 Belostoma, 710.  
 Bennett, A. W. on absorption of water by leaves of plants, 20.  
 Bilateral symmetry, 41.  
 Birds, grease on plumage of, 456.  
     music of, 209.  
 Bitumen of Trinidad, 229.  
 Blood corpuscles, human, nucleated, 137.  
 Boll, J., geology and agriculture of Texas, 375.  
 Boëcherus humerosus, 131.  
 Bosmina longirostris, 623.  
 Botanical nomenclature, 184.  
 Botany, history of American, 754.  
 Bothrioccephalus latus in America, 410.  
 Brain, human, variation of, 458.  
 Brands, 615.  
 Brasenja peltata, 254.  
 Brassica nigra, 413.  
 Brazilian artificial mounds, 224.  
     corals and coral reefs, 539.  
     sandstone reefs, 347.  
 Brendel, F., on intelligence in Canthion, 655.  
     Historical sketch of N. A. Botany, 1035-1840, 754.  
     on nomenclature, 184.  
     on taking census of plants in a given area, 700.  
 Bromophycis marginatus, 306.  
 Brown, A. E., grief in the chimpanzee, 173.  
 Bubo virginianus, 783.  
 Bufo dipteraus, 437.  
 Cabbage worm, imported, 393.  
 Caddis fly with branchiae, 586.  
 California, ethnology of Southern, 327.  
     fishes of, 209.  
     sand mounds in, 565.  
 Callidium variabile, 262.  
 Call, P. E., on synonymous Unios, 392.  
 Calystegia sepium, 778.  
 Camarasaurus leptodirus, 403.  
 Camels, breeding in Yuma, 470.  
 Campolceus labradorius, 128.  
 Candle fish, 300.  
 Canthion, 654.  
 Cardinal flower, 427.  
 Caribou, protective coloration of, 140.  
 Carnivora, teeth of, 171.  
 Carpocapsa pomonella, 523.  
 Caton, J. D., on red squirrels, 46.  
     on saw fish, 654.  
 Catskills, topography of, 473, 799.  
 Cave in Utah, 463.  
 Cecidomyia trifolii, 190.  
 Cells, lead, 409.  
 Celts, turtle back, 128.  
 Centipede, poisonous, 527.  
 Centrosema, fertilization of, 688.  
 Cereale fungi infesting, 612.  
 Cermæ a forceps, 527, 711.  
 Cervus canadensis, 708.  
     macrotis, 435.  
 Champlain Valley, Archaeology of, 731.  
 Characeæ, American, 391.  
 Cheat vs. wheat, 412.  
 Chelopus marmoratus, 780.  
 Chimæra, 685.  
 Chimpanzee, 173.  
     brain of, 410.  
 Chirocephalus holmanii, 703.  
 Chirotes, 782.  
 Chirus constellatus, 301.  
     gullatus, 301.  
 Chorophilus triseriatus, 437.  
 Citrus pomona, 647.  
 Clark, F. C., on instinct and reason, 96.  
 Clark, H. J., on Lucernariae, 692.  
 Clark, Xenos, on animal music, 209.  
 Clematis verticillaris, 537.  
 Cliona, 279.  
 Clitoria, fertilization of, 688.  
 Cluster cups, 467.  
 Cod, cape, formation of, 489, 552.  
     green rock, 300.  
 Codfish of the Pacific coast, 685.  
 Cœcilia, 787.  
 Cœlodon, 270, 592.  
 Color, adjectives of, in Indian languages, 475.  
 Colorado desert, fossil shells from, 141.  
     plants, 675.  
 Compressorium, Wenham, 138.  
 Cook, A. J., on Lecanium of tulip tree, 324.  
     on parthenogenesis in honey bee, 393.  
 Cope, E. D., on Anchisodon, 270.  
     on Aceratheria, 333.  
     on Californian cave bear, 791, 800.  
     on California gray whale, 655.  
     on extinct mammalia of Oregon, 131.  
     on fishes of Klamath lake, 784.  
     on Japanese lap dog, 655.  
     on Lota maculosa, 457.

- Cope, E. D., on New Jurassic Dinosaurians, 402.  
 on Siredon, 456.  
 origin of the specialized teeth of Carnivora, 171.  
 on fossil mammals, 197.  
 on the lower jaw of *Loxolophodon*, 334.  
 on the necks of the *Sauropterygia*, 132.  
 on a sting ray from the Green river shales of Wyoming, 333.  
 zoology of Montana, 432.
- Copper implements, Indian, 460, 528.  
 Corals and coral reefs, Brazilian, 539.  
 Cotton worm moth, 726.  
 Coues, E., on Colorado birds, 311.  
 on the English sparrow, 706.  
 on hairy-tailed mole, 189.  
 on the nomenclature of *Hesperomys americanus*, 784.
- Cragin, F. W., on oviparous snakes, 710.  
 Crane's bill, 413.  
 Craniometry, 130.  
 Craniums, study of, 457.  
 Cricket, sound producing organs of, 322.  
 Crosby W. O., on pitch lake of Trinidad, 229.  
 Crustacea, 45, 127, 514, 575, 584, 585, 599.  
 classification of, new, 785.  
 geographical distribution of, 575, 584.  
 nebuli, 128.  
 stalk-eyed, 514.
- Ctenophora, 652.  
 Cucumber, wild, 779.  
 Cyclops, 622.
- Dace, breeding habits of, 321.  
 Davenport, G. E., an *Aspidium boottii*, 186.  
 Davenport herbarium, 390.  
 Deer, one-toed, 708.  
 Derby, O. A., on Brazilian artificial mounds, 224.  
 Dercum, F., on morphology of semicircular canals, 366.  
 Diamonds, in China, 471.  
*Diaptomus longicornis*, 622.  
 Dinosauria, Jurassic, new, 402.  
 Dog, Japanese lap, 655.  
 new forms of, 530.  
 origin of, 748.
- Echinocystis lobata*, 779.  
 Eel, discovery of male, 25, 125, 319.  
 Elrod, M. L., on seeds as projectiles, 95.  
*Enhydrocyon basilatus*, 131.  
*stenoccephalus*, 131.  
 Entomological Commission, 60, 535.  
 Entomostraca, fresh water, 620.  
 Eozoön, 197, 270, 715.  
 Ergot, 612.  
 Ericomi, 397.  
*Erodium cicutarium*, 413.  
*moschatum*, 413.  
*Eucyrtidium cranoides*, 62.  
*Eurypaopus spinosus*, 603, 703.  
 Evolution, 725.
- Fairy ring, 256.  
 Farlow, W. G., on sea weeds of Great Salt lake, 701.  
 Filaree, 413.  
*Filaria sanguinis-hominis*, 410.  
 Fish Commission, 61.  
 Fishes, new deep sea, 455.  
 sounds of, 586.  
 of California, 299.  
 Klamath lake, 784.  
 soft rays of 41.
- Flax, origin of, 751.  
 Flora, North American, 155.  
 Flora of Mongolia, 521.  
 Flowers, cross fertilization of, 1, 39, 40.  
 dichogamy in, 40.  
 fertilization of, by insects, 451.  
 insects as unconscious selectors of, 257.  
 nectar of, 124.
- Ford, J., on the leather turtle, 633.  
 Forests and rainfall, 391.  
 Formica, fusca, 707.  
 sanguinea, 707.
- Formica, schaufussi, 707.  
 Fox snake, does it mimic the rattlesnake? 582.  
 Fraser, P., Jr., on the mesozoic sandstone of the Atlantic slope, 284.  
 on protoplasm, 420.  
 Frey, S. L., on mound-builders (?) in New York, 637.  
 Fungi infesting cereals, 612.
- Gadus auratus*, 685.  
*macrocephalus*, 685.  
 Gall inhabiting ant, 126.  
 Gatschet, A. S., on adjectives of color in Indian languages, 475.  
 Gemmule, 12.  
 Generation, spontaneous, 139.  
*Genyanemus lineatus*, 303.  
 Geological Museum of Columbia College, 502.  
 Surveys, U. S., 181, 343, 535, 727.  
 time, series of animal forms in, 445.
- Geology of Cape Cod, 489, 552.  
 Geraniums in California, 415.  
 Germ theory of disease, 595, 600.  
 Gillman, H., on Citrus pomona, 647.  
 on double flowers of *Houstonia*, 700.
- Gladolus*, 4.  
 Goat origin of, 750.  
 Goose, age of, 62.  
 Gordius, 538.  
 Grape fruit, 647.  
 Grass, barley, 418.  
 Gray, Asa, notice of Clark's *Instinct and Reason*, 317.  
 Gregg, W. H., on the habits of dace, 321.  
*Gryptothidium darwini*, 590.  
 Guatemalan sculptures, 191.
- Hair, 50.  
 Hair in negroes, insertion of, 397.  
 Haldeman, S. S., note on animal music, 454.  
 on double headed snakes, 525.  
 on iron axes, 528.  
 on unsymmetric arrow-heads, 292.
- Haplocerus montanus*, 435.  
 Hartt, C. F., on manufacture of pottery among savages, 78.  
 on Brazilian sandstone reefs, 347.
- Hedge bindweed, 778.  
 Helminthology, American, 386.  
*Heloderma suspectum*, 781.  
 Herrick, C. L., on fresh-water Entomostraca, 620.  
*Hesperomys americanus*, 784.
- Heterodon platyrhinos*, oviparous, 710.  
 Hull, E. J., on number of stamens in *Brasenia peltata*, 254.  
 on Potamogeton niagarensis, 699.  
 on Shepherdia, 699.  
 on Prunus pumila, 649.
- Hoffman, W. J., discovery of turtle-back celts in Dist. of Columbia, 108.  
 on aboriginal customs, 6.  
 on molting of horned toad, 326.  
 Honey bee, parthenogenesis of, 260, 393.  
 Hooker, J. D., on the distribution of the North American flora, 155.
- Hoplophonus, 197.  
*Hordeum maritimum*, 418.  
 Hornaday, on habits of orang, 712.  
 Horse, origin of domestic, 750.  
*Houstonia rotundifolia* with double flowers, 700.  
 Hummer's meal, 127.  
 Hydrocarbon in New Jersey, 198.  
*Hydrotragus collieri*, 685.  
*Hypomessus oildus*, 307.  
*Hypsirophus scelyanus*, 404.
- India, extinct reptiles of, 532.  
 Indian arrow-heads, 292.  
 manufacture of, 657.  
 customs, 6.  
 graves in Pennsylvania, 294.  
 implements, 715.  
 languages, adjectives of color in, 475.  
 lost race of, 9.  
 vocabulary, 787.
- Infusions, Tyndall on, 130.

- Infusoria, 711.  
 Insects, 33, 34.  
     brain of, 711, 730.  
     as unconscious selectors of flowers, 257.  
     food, 341.  
     fossil, 132, 203.  
     mimicing seeds and fruits, 703.  
     powder, 572.  
 Instinct and reason, 96.  
 Japan, Crustacea of, 575.  
 Jilison, B. C., on a fairy ring, 256.  
 Jurassic Dinosauria, 402.  
 King, F. H., mimicry of the rattlesnake by the fox snake, 582.  
 Kingsley, J. S., on breeding habits of eel, 319.  
     notices of works on Crustacea, 45, 127, 514, 575, 584, 599.  
 Leaves, absorption of water by, 20, 188.  
 Lecanium of tulip tree, 324.  
 Lee, L. A., on a cave in Utah, 460.  
 Lepidosteus otarius, 441.  
     productus, 441.  
 Lichens, 206.  
 Lilies of North America, 701.  
 Limulus, fossil, 587.  
 Lindahl, J., on tongue of woodpecker, 43.  
 Lingula, 44, 387.  
 Lintner, J. A., on clover seed fly, 190.  
 Liodon, scales of, 132.  
 Lithology, 385.  
 Lobelia, fertilization of, 427.  
     syphillica, 4.  
 Lockington, W. N., on Californian fishes, 299, 684.  
     on Pacific coast mammals, 708.  
     on Pacific coast reptiles and batrachians, 780.  
 Lockwood, S. L., on the robin, 359.  
 Locust, in old world, 600.  
     Rocky mountain, in New Mexico, 586.  
 Lophocomi, 397.  
 Lota maculosa, 439.  
 Loxolophodon, lower jaw of, 334.  
 Lucernaria, 692.  
 Lucioperca borea, 439.  
 Lum, S. K., on thrushes of Washington Territory, 629.  
 Luticrisis (?), lycopotamicus, 131.  
 Lycosa, habits of, 485.  
 Lynx canadensis, 728.  
 Macrurus bairdii, 455.  
 Mammalia, extinct, of Oregon, 131.  
 Mammals, fossil, 33.  
     Gaudry on, 445.  
 Man, pliocene, 799.  
 Martindale, I. C., on Colorado plants, 675.  
 Mason, O. T., on anthropology, 48, 129, 191, 265, 298, 396, 457, 527, 656, 716, 787.  
 Mentzelia ornata, 779.  
 Merycopater, 197.  
 Mesozoic sandstone, 284.  
 Micrometry, standard for, 337.  
 Microscopy, measurements with, 59.  
 Microscopic specimens, removal of air from, 57.  
 Millsbaugh, T. F., on twining of wild cucumber, 779.  
 Molar, third, 130.  
 Mold as an insect destroyer, 681.  
 Mole, hairy-tailed, 189.  
 Montana, zoölogy of, 432.  
 Mortillet, De, on origin of domestic animals, 747.  
 Mound builders, 268.  
     in New York? 637.  
     not extinct, 459.  
 Mounds, sand, in California, 565.  
 Mugil, 395.  
 Muller, H., on the mutual relations of flowers and the insects which cross them, 451.  
 Music, animal, 209, 454.  
 Mustard, 413.  
 Myiarchus, 519.  
 Nympha, 62.  
 Myriopod, pauropod, 603.  
 Myrtynia proboscidea, 2.  
 Nebalia, 128.  
 Negroes, hair of, 398.  
 Neocarida, 786.  
 New Zealand, 65.  
     geological survey of, 330.  
 Norway, mollusks of, 30.  
 Oat, wild, 419.  
 Ohio, archaeology of, 328.  
 Olfactory centers, 717.  
 Orang, habits of, 712.  
 Ornithology of Texas, 261.  
     Texan, 516.  
 Osmerus thaleichthys, 307.  
 Owl, 262, 783.  
     snowy, 524.  
 Ox, domestic, origin of, 750.  
 Oxalis, seeds of, as projectiles, 95.  
     violacea, root of, 521.  
 Ozocerite, 197.  
 Pacific coast fishes, 684.  
     salmon, 522.  
 Packard, A. S., Jr., on Cermetia forceps, 527, 711.  
     on male eel, 25, 125, 319.  
     on nebuliad Crustacea, 128.  
     on a new classification of the Crustacea, 785.  
     on Rocky mountain locust in New Mexico, 586.  
     on sea weeds of Great Salt lake, 701.  
 Palæocarida, 786.  
 Pangenesis, 14.  
 Parthenogenesis in honey bee, 260, 393.  
 Passer domesticus, 705, 706.  
 Patton, W. H., on a gall-inhabiting ant, 126.  
 Pauropus, 611.  
 Pentstemon, 2.  
 Pericome caudata, 680.  
 Perkins, G. A., on archaeology of the Champlain valley, 731.  
 Permian vertebrata, 332.  
 Phosphorescence in marine animals, 599.  
 Phoxinus milnerianus, 440.  
 Phrynosoma douglassii, 226, 435.  
 Phyllocarida, 128.  
 Physa humerosa, 142.  
 Physarum cinereum, 257.  
 Phytoptus, 704.  
 Picus, 43.  
 Pig, origin of, 750.  
 Pierce, N. B., on sound-producing organs of cricket, 322.  
 Pityophis, 711.  
 Plants, absorption of water by leaves of, 20.  
     of Colorado, 675.  
     cultivated, origin of, 751.  
     dimorphic, 40.  
     living, received by mail, how to treat, 650.  
     self-fertilization of, 319.  
     sensitive, contraction of leaves of, 319.  
     taking of census of, in a given area, 701.  
 Plastidule, 12.  
 Podiceps dominicus, 518.  
 Poëbrotherium sternbergii, 131.  
 Polycystis packardii, 702.  
 Polyps, swimming, 653.  
 Pompino, 304.  
 Potamogeton niagarensis, 699.  
 Pottery of savage races, 78.  
 Potts, E., on shedding of tracheæ, 454.  
     on two chrysalids in one cocoon, 455.  
 Pristis, 262, 654.  
 Protolabis transmontanus, 131.  
 Protoplasm, 12, 420.  
 Prunus pumila, 649.  
 Rachianectes, 655.  
 Rainfall and forests, 39.  
 Rana berlandieri, 395, 436.  
     halecina, 436.  
     pretiosa, 435.  
     temporaria, 780.  
 Rathbun, R., on Brazilian corals and coral reefs, 539.  
     Prof. C. F. Hartt on the Brazilian sandstone reefs, 547.

- Rattlesnake, 322, 435.  
 Read, M. C., on English sparrow, 190, 705.  
 Redding, B. B., manufacture of Indian arrow-heads, 667.  
 Rhinichthys atronatus, 321.  
 Rhinoceroses, fossil, 333.  
 Rhizoclonium, 703.  
 Rhododendron catawbiense, 777.  
 Rhyolite, 491.  
 Riley, C. V., on apple worms, 523.  
     on shedding of tracheæ of insects, 652.  
 Roberts, T. S., on the root of oxalis, 521.  
 Robin, 359.  
 Rocks, tertiary eruptive, 399.  
     Wadsworth on classification of, 531.  
 Rogers, W. A., on the limits of accuracy in measurements with the microscope, 59.  
 Ruling, micrometric, 535.  
 Russell, I. C., on fertilization of Wistaria, 648.  
     on geological museum of Columbia College, 502.  
     on New Zealand, 65.  
 Rust, 615.  
 Ryder, J. A., on boring sponge, 279.  
     on Chirocephalus and Streptocephalus, 703.  
     on Phytopus, 704.  
     on Euryapropus, 603.  
     on the gemmule vs. the plastidule as the ultimate physical unit of living matter, 12.  
     on habits of barnacle, 453.  
     on habits of bee, 648.  
     origin of bilateral symmetry in fishes, 41.  
 Rye, origin of, 751.  
 Salix flavescens, 681.  
 Salmon, breeding of land locked, 583.  
     Pacific coast, 522.  
 Salt lake, Great, sea weeds of, 701.  
 Sardinia lineolata, 303.  
 Saunders, W., on insect powder, 572.  
 Sauranodon, 271.  
 Sauropterygia, 132.  
 Saw fish, 262, 654.  
 Scalops breweri, 189.  
 Scaphirhynchops platyrhynchus, 439.  
 Scirurus hudsonius, 46.  
 Scomber colias, 304.  
 Scorpænichthys marmoratus, 301.  
 Sea-weeds fertilized by infusoria, 711.  
     of Great Salt lake, 701.  
 Sebastes, 301, 302.  
 Seeds and fruits, mimicry of, by insects, 703.  
     dispersion of, 698.  
     form of, as a factor in natural selection, 411.  
     hygroscopic, 417.  
 Shells, fossil, from Colorado desert, 141.  
 Shepherdia canadensis, 699.  
 Sheep, domestic, origin of, 751.  
 Streptocephalus sealii, 703.  
 Sida crystallina, 623.  
 Siewers, C. G., on mold as an insect destroyer, 681.  
 Simonds, F. W., on Rhododendron catawbiense, 778.  
 Sirelons, Mexican, 456.  
 Skeleton, human, 457.  
 Skulls, human, 717.  
     perforated, 327.  
     as cinerary urns, 328.  
 Sloth, 315.  
 Sloths, giant fossil, 590.  
 Smelt, Californian, 306.  
 Smith, F. S., spawning of the spade-foot toad, 652.  
 Smut, 614.  
 Snake, double-headed, 525.  
     mimicry in, 711.  
     vibrations in tail of, 712.  
 Snakes, oviparous, 710.  
 Snowy owl, 524.  
 Sounds made by fishes, 587.  
 Sparrow, English, 190, 705, 706.  
 Speca bombifrons, 436.  
 Sperophilus richardsoni, 709.  
 Sphaigis coriacea, 467, 633.  
 Sphyræna argentea, 303.  
 Sponge, boring, 279.  
 Squilla, a fossil, 587.  
 Squirrel, red, 46.  
 Stearns, R. E. C., on fossil shells from the Colorado desert, 141.  
     on seeds as a factor in natural selection, 411.  
 Stenamma gallarum, 126.  
 Stevens, A. H., on prevention of grease from injuring plumage of birds, 456.  
 Sting ray, tertiary, 333.  
 Stromateus simillimus, 304.  
 Sturtevant, E. L., on salmon, 583.  
 Stylasteridae, 121.  
 Swallow, 706.  
 Swigert, S. M., on habits of Sperophilus richardsoni, 709.  
 Symplocarpus foetidus, fertilization of, 589.  
 Szabó, J., on tertiary eruptive rocks, 399.  
 Tarantula, habits of, 485.  
 Taylor, J. R., on the English sparrow, 706.  
 Teeth, genesis of, Ryder on, 446.  
     of Carnivora, 171.  
 Tertiary eruptive rocks, 399.  
 Texan ornithology, 516.  
 Texas, birds of, 261.  
     geology of, 375.  
 Thrushes of Washington Territory, 629.  
 Toad, horned, molting of, 336.  
     spade-foot, 651.  
 Todd, J. E., on cross-fertilization of flowers, 1.  
     on the growth of trees, 123.  
 Tooth, third molar, 130.  
 Tracheæ, shedding of, in molting of insects, 454.  
     652.  
 Trachyte, 401.  
 Treat, M., on slave-making ants, 707.  
     on the tarantula, 485.  
 Tree, growth of, 123.  
 Trelease, W., on the fertilization of Clitoria and Centrosema, 688.  
     on fertilization of several species of Lobelia, 427.  
     on fertilization of Symplocarpus foetidus, 580.  
     review of Muller on cross-fertilization of flowers by insects, 452.  
 Tricrania stansburii, 45.  
 Trilobites, development of, 659.  
 Trinidad, pitch lake of, 229.  
 Trochifera, 387.  
 Tryonia protea, 142.  
 Turdus, 629.  
 Turner, H., on Belostoma, 710.  
     on a stratagem of a wasp, 710.  
 Turtle, leather, 633.  
 Ulva marginata, 702.  
 Unio, 392.  
 Upham, W., on geology of Cape Cod, 489, 552.  
 Utah, cave in, 460.  
 Vertebrata, evolution of, 725.  
 Viola, seeds of as projectiles, 94.  
 Violet, seeds of as projectiles, 93.  
 Vogeles, A. W., on a lost race of America, 9.  
 Volcanoes in California, 602.  
 Wasp, 710.  
 Wax, mineral, in Utah, 197.  
 Whale, 715.  
     Gray, 655.  
 Wheat, origin of, 747.  
 Wistaria, fertilization of, 648.  
 Woodpecker, red-headed, habits of, 522.  
     tongue of, 43.  
 Worms, intestinal, 386.  
     turbellarian, 314.  
 Wren, 262.  
 Xantusia riversiana, 801.  
 Xiphotrygon acutidens, 333.

